

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of transmitting signals from at least two antennae comprising the steps of:

determining at least one ~~[[correlation]]~~ first coefficient based upon ~~[[received]]~~ information indicative of at least two first signals ~~[[from]]~~ received by the at least two antennae, said at least one first coefficient being indicative of at least one correlation between the first signals; and

determining at least one second coefficient based on the first coefficient, in response to the at least one determined correlation coefficient, selecting at least one of said at least one second coefficient indicating weights applied to at least two second signals to be transmitted by said at least two antennae, the weights indicating relative amounts of orthogonal coding and beamforming to be used for transmitting said at least two second signals using the at least two antennae.

2. (Currently Amended) The method of claim 1, wherein the step of determining at least one correlation coefficient between the received signals comprises determining at least one amplitude correlation coefficient.

3. (Previously Presented) The method of claim 1, wherein the step of determining at least one ~~[[correlation]]~~ first coefficient ~~between the received signals~~ comprises determining at least one phase correlation coefficient.

4. (Previously Presented) The method of claim 3, wherein the at least one phase correlation coefficient is estimated.

5. (Currently Amended) The method of claim 1, wherein the step of determining at least one ~~[[correlation]]~~ first coefficient comprises determining at least one correlation between the received signals.

6. (Currently Amended) The method of claim 1, wherein the step of ~~selecting at least one of orthogonal coding and beamforming~~ determining said at least one second coefficient based on the first coefficient comprises selecting a proportion of orthogonal coding relative to a proportion of beamforming used for transmitting the signals.

7. (Currently Amended) The method of claim 6, wherein the at least one ~~[[correlation]]~~ first coefficient varies between a first level and a second level.

8. (Currently Amended) The method of claim 13, wherein the at least one ~~[[correlation]]~~ first coefficient having a level between the first and second levels results in selecting both beamforming and orthogonal coding for transmitting.

9. (Currently Amended) The method of claim 13, wherein the at least one ~~[[correlation]]~~ first coefficient determines the proportion of beamforming relative to orthogonal coding used for transmitting.

10. (Currently Amended) The method of claim 9, wherein the at least one [[correlation]] first coefficient being at a level that is closer to the first level results in transmitting more beamforming than orthogonal coding.

11. (Currently Amended) The method of claim 9, wherein the at least one [[correlation]] first coefficient being at a level that is closer to the second level results in transmitting using more orthogonal than beamforming.

12. (Currently Amended) The method of claim 9, wherein the at least one [[correlation]] first coefficient relative to the first and second reference levels determines the relative amounts of beamforming relative to orthogonal coding used for transmitting.

13. (Currently Amended) The method of claim 7, wherein the at least one [[correlation]] first coefficient being substantially equal to the first level results in selecting beamforming for transmitting and wherein the at least one correlation coefficient being substantially equal to the second level results in selecting orthogonal coding for transmitting.